17.0 Non-technical Abstract

Infection by the human immunodeficiency virus (HIV) leads to progressive loss of the body's immune defenses against infectious agents. Persistent HIV infection therefore leads to an acquired immunodeficiency syndrome (AIDS), for which there are currently no curative treatments. It has recently become clear that the introduction of specific genes into T cells can provide protective effects against HIV growth in the laboratory. One of these protective genes is an altered inactive form of an essential viral gene, called Rev. Expression of this altered form of Rev, called Rev M10, inhibits normal Rev function and blocks productive HIV replication. In this study, we propose to determine whether Rev M10 can improve the survival of T cells in humans. If this approach proves successful, it could provide the basis to develop Rev M10 as a molecular genetic intervention for the treatment of AIDS.